

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KATHIRGAMASUNDARAM SOORIAKUMAR,
ALLEN H. MEITZLER, SHAUN L. MCCARTHY
and RUSSELL J. HAEBERLE

Appeal No. 98-1230
Application 08/316,753¹

ON BRIEF

Before HAIRSTON, BARRETT and FLEMING, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 through 4, 8 and 9. In an Amendment After Final (paper number 6), claim 1 was amended.

The disclosed invention relates to a hermetically sealed microelectronic device.

¹ Application for patent filed October 3, 1994.

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Claim 1 is the only independent claim on appeal, and it reads as follows:

1. A hermetically sealed microelectronic device suitable for use as a microprocessor or computer chip, comprising:
a substrate wafer having associated electronics and at least one metal bond pad;
a dielectric layer deposited atop said substrate wafer to a thickness of at least two microns to form a dielectric/metal seal including a plurality of signal leads; and
a cover wafer anodically bonded to said dielectric layer and defining a sealed cavity therebetween to house and protect said electronics, the dielectric layer having a coefficient of expansion thermally matched to the coefficients of expansion of the substrate wafer and the cover wafer and having no surface variations greater than 1000 Angstroms, whereby said microelectronic device is packaged in its own container and hermetically sealed.

The reference relied on by the examiner is:

Mikkor	4,773,972	Sept. 27, 1988
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Claims 1 through 4, 8 and 9 stand rejected under 35 U.S.C.

§ 103 as being unpatentable over Mikkor.

Reference is made to the briefs and the answer for the respective positions of the appellants and the examiner.

OPINION

The obviousness rejection of claims 1 through 4, 8 and 9 is reversed.

With the exception of the dielectric layer "having no surface variations greater than 1000 Angstroms," all of the limitations of claim 1 read on the hermetically sealed capacitive pressure sensor disclosed by Mikkor. According to the examiner (Answer, page 4) this limitation was not considered because "[t]he presence of process limitations in product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to that product."

The examiner has reached an erroneous position because the questioned limitation in claim 1 recites a feature of the dielectric layer, and it is not a process limitation. The disclosure makes clear that a smooth surface on the dielectric layer "allows anodic bonding to be done at lower temperatures with lower applied voltages, resulting in reduced residual stresses in the composite structure to achieve the required hermetic seal" (specification, page 9).

Although Mikkor uses anodic bonding to create a hermetic seal, we do not know whether the dielectric layer has a smooth enough surface to meet the claimed surface variations. In the

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absence of such a teaching in Mikkor, we will reverse the obviousness rejection of claims 1 through 4, 8 and 9.

DECISION

The decision of the examiner rejecting claims 1 through 4, 8 and 9 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	
)	BOARD OF PATENT
LEE E. BARRETT)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES

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MICHAEL R. FLEMING)
Administrative Patent Judge)

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